

**AMENDMENTS TO THE DRAWINGS**

Figs. 1 and 2 are amended to include a label "Related Art"

Attachment:

Two (2) Replacement Sheets

### **REMARKS**

Claims 1-30 are all the claims pending in the application. By this Amendment, Applicant amends claims 2, 3, 28, and 29 to further clarify the features set forth therein. Applicant also adds claims 31-36, which are clearly supported throughout the specification.

#### **I. Preliminary Matters**

As preliminary matters, the Examiner initialed the references listed on forms PTO/SB/08 submitted with the Information Disclosure Statements filed on October 5, 2006 and July 6, 2009. The Examiner also acknowledged the claim to foreign priority and confirmed the receipt of the certified copy of the priority documents.

The Examiner, however, objected to the drawings. Specifically, the Examiner requests that Figs. 1 and 2 are labeled “prior art” (*see* page 2 of the Office Action). Applicant respectfully requests the Examiner to withdraw this objection to the drawings in view of the self-explanatory amendments to the Drawings being made herein. No new matter is being added.

#### **II. Summary of the Office Action**

The Examiner rejects the claims 1-30 under 35 U.S.C. § 102(e).

#### **III. Claim Rejection under 35 U.S.C. § 102**

Claims 1-30 are rejected under 35 U.S.C. § 102(e) as being anticipated by Noguchi et al. (US 7,076,550), hereinafter referred to as “Noguchi”. Applicant respectfully traverses these grounds of rejection at least in view of the following exemplary comments.

##### **A. Claim 1**

Claim 1 recites: “a cooperative work service management apparatus comprising a negotiator module for determining cooperative work service roles of devices connected to a

network, through a predetermined election algorithm, so that a cooperative work service can be performed among the devices by using descriptions collected from the devices, and controlling operations of the devices according to the determined cooperative work service roles to process a control command transmitted from a control device connected to the network.”

The Examiner alleges that claim 1 is directed to a management apparatus and is anticipated by Noguchi. Specifically, the Examiner relies on the Abstract, col. 2, lines 34 to 47 and lines 25 to 56 (*see* page 3 of the Office Action).

Noguchi relates to a network that connects various household electrical appliances without a server. In particular, Noguchi discloses a network connection apparatus connected to the other network connection apparatus via a radio or a cable communication line to configure a network, including: an interface unit for sending and receiving data via the communication line; an apparatus information storing unit for storing information of its own apparatus; and an apparatus information interpretation unit for interpreting information of the other network connection apparatus received by the interface unit; wherein the network connection apparatus, when it is connected to the network, notifies the other network connection apparatus connected to the network of the information of its own apparatus stored in the apparatus information storing unit, via the interface unit (col. 2, lines 33 to 48).

Noguchi also discloses that the information of its own apparatus include function information of its own apparatus, and the apparatus information interpretation unit include a function interpretation unit for interpreting the function information of the other network connection apparatuses sent from the other network connection apparatuses. According to this configuration, the apparatus newly connected to the network notifies the other network connection apparatuses of the function information of its own apparatus, and the other network

connection apparatuses can recognize what function the newly connected network connection apparatus has by interpreting the function information in the function interpretation unit of the apparatus information interpretation unit. Thus, without the need for a server, all the other apparatuses connected to the network can recognize the function of each network connection apparatus. The apparatus further includes an information providing unit for providing information, wherein information of the service that the function interpretation unit judges to be providable based on the result of the interpretation of the function information from the other network connection apparatuses is provided by the information providing unit. According to this configuration, the function interpretation unit of each network connection apparatus judges the providable service based on the function information from the other network connection apparatuses and provides the information of the service by the information providing unit. Thus, it is possible to judge autonomously the services that newly can be provided and to provide the same to a user (col. 3, lines 25 to 56).

In other words, Noguchi simply discloses connecting the devices without a server *i.e.*, a control device. Noguchi, however, is unrelated to devices performing same function *e.g.*, two printers. That is, Noguchi does not disclose or suggest splitting same functions among the devices. Furthermore, since Noguchi simply discloses connecting the devices to each other without a server, there is no control device. Noguchi does not disclose or suggest having a control device *e.g.*, a server on the network. In addition, Noguchi does not disclose or even remotely suggest an “election algorithm”. Since Noguchi does not disclose or suggest multiple devices performing the same function and coordinating the same function between these multiple devices, there is no algorithm that needs to be applied to select the roles of each of the devices. In short, Noguchi does not disclose or suggest an election algorithm.

Accordingly, claim 1 is patentable over Noguchi because the cited reference does not teach or suggest all of the features of the claim.

***B. Claim 2***

Independent claim 2 recites coordinator module for one of directly performing a control command transmitted from a control device present in a network having devices connected thereto and transmitting the control command to other devices so as to control operations of the other devices performing at least one same function where the at least one same function is required for a cooperative work service, according to descriptions collected from the devices connected to the network and cooperative work service roles determined through a predetermined algorithm.” As explained above, Noguchi relies on another device only in case it cannot perform the needed function (col. 11, line 51 to col. 12, line 21). That is, in Noguchi, if the device cannot print, it will outsource the print job to another device. In other words, Noguchi does not disclose or suggest allocating a print job amongst printers but instead, only discloses devices complementing each other and not devices performing same function.

Accordingly, claim 2 is patentable over Noguchi because the cited reference does not teach or suggest all of the features of the claim.

***C. Claim 3***

Independent claim 3 recites features similar to, although not necessarily coextensive with, the features discussed above with respect to proposed amended claim 2. Therefore, claim 3 is patentable over Noguchi for reasons analogous to those discussed above with regard to proposed amended claim 2.

***D. Claim 4-7***

Independent claim 4 recites features similar to, although not necessarily coextensive with, the features discussed above with respect to claim 1. Therefore, claim 4 is patentable over Noguchi for reasons analogous to those discussed above with regard to claim 1. Claims 5-7 are patentable at least by virtue of their dependency.

In addition, dependent claim 7 recites: “the election algorithm is written in a predetermined programming language, which serves to coordinate the cooperative work service roles of the devices so that consistency in the same services can be maintained according to a function of service to be provided through the cooperative work service by using the descriptions provided from the devices present in the network.” The Examiner alleges that Figs. 3-5 and 14-14 of Noguchi disclose the above-quoted unique features of claim 7 (*see* page 6 of the Office Action). Applicant respectfully disagrees.

These figures of Noguchi show function definition description for various different devices *i.e.*, a printer, scanner, gateway, etc. Further, these figures in Noguchi show service related description with input and output parameters. These figures and the corresponding descriptions of Noguchi, however, do not disclose or even remotely suggest an election algorithm for allocating same service to devices capable of performing this same service. That is, Noguchi does not disclose or suggest having two printers and sending pages 1-6 of a twelve page document to be printed on one printer and the other six pages to be printed on the other printer.

For at least these addition exemplary reasons, claim 7 is patentable over Noguchi because the cited reference does not teach or suggest all of the features of the claim.

*E. Claims 8-11*

Independent claim 8 recites features similar to, although not necessarily coextensive with, the features discussed above with respect to claim 1. Therefore, claim 8 is patentable over Noguchi for reasons analogous to those discussed above with regard to claim 1. Claims 9-11 are patentable at least by virtue of their dependency.

*F. Claims 12-17*

Independent claim 12 recites features similar to, although not necessarily coextensive with, the features discussed above with respect to claim 1. Therefore, claim 12 is patentable over Noguchi for reasons analogous to those discussed above with regard to claim 1. Claims 13-17 are patentable at least by virtue of their dependency.

In addition, claim 12 recites “a negotiator module connected to the plurality of devices, for determining cooperative work service roles of the plurality of devices by applying device descriptions collected from the plurality of devices to a predetermined election algorithm so that the cooperative work service can be performed in consideration of a function of a corresponding device.” The Examiner alleges that an interpretation unit of Noguchi discloses the negotiator module set forth in claim 12 (*see* pages 6-7 of the Office Action). Applicant respectfully disagrees.

As is clearly visible from Fig. 8 and the corresponding description in Noguchi, the interpretation unit is provided within a device and is not a separate module connected to the plurality of devices. For at least these additional exemplary reasons, claim 12 is patentable over Noguchi.

In addition, dependent claim 15 recites: “a supporter module, wherein the supporter module is provided in a device, to which the supporter module does not belong, among the

plurality of devices connected to the network.” Contrary to the Examiner’s allegations on pages 7-8 of the Office Action, in Noguchi, functional storage units are provided in the device to which they belong. That is, the function storage unit 14 belongs to the scanner and the function storage unit 24 belongs to the printer, as explicitly disclosed in Noguchi (col. 9, lines 38 to 49). That is, these units store function definition of its own device and the services it can provide in cooperation with other devices. For at least these additional reasons, claim 15 is patentably distinguishable from Noguchi.

***G. Claims 18-20***

Independent claim 18 recites features similar to, although not necessarily coextensive with, the features discussed above with respect to claim 1. Therefore, claim 18 is patentable over Noguchi for reasons analogous to those discussed above with regard to claim 1. Claims 19 and 20 are patentable at least by virtue of their dependency.

***H. Claims 21-26***

Independent claim 21 recites: “causing a cooperative work service to inform other cooperative work services connected to a network of a presence of said cooperative work service and to exchange service descriptions with cooperative work services having the same service functions; determining a role of the cooperative work service by using the provided service descriptions and a predetermined election algorithm; and selectively executing one of a coordinator module and a supporter module according to the determined role.”

As explained above, Noguchi discloses the devices complementing the functions of each other *e.g.*, scanner and printer or scanner and hard disk. In other words, Noguchi does not disclose or even remotely suggest the devices performing same functions *e.g.*, two printers and



allocating the printing job between these devices. Furthermore, Noguchi does not disclose or even remotely suggest executing support module or coordination module. As acknowledged by the Examiner, Noguchi simply discloses storing various information and not activating various modules (functions) for execution.

Accordingly, claim 21 is patentable over Noguchi because the cited reference does not teach or suggest all of the features of the claim. Claims 22-26 are patentable at least by virtue of their dependency.

In addition, dependent claim 24 *inter alia* recites: “determining a cooperative work service role of each device as a coordinator if it is determined that there are no said other cooperative work services.” Contrary to the Examiner’s allegations on page 11 of the Office Action, Noguchi does not disclose or suggest that the first device performing a particular function is a coordinator whereas other devices with same functions are supporters. For at least these additional exemplary reasons, claim 24 is patentably distinguishable from Noguchi.

***I. Claim 27***

Independent claim 27 recites features similar to, although not necessarily coextensive with, the features discussed above with respect to claim 1. Therefore, claim 27 is patentable over Noguchi for reasons analogous to those discussed above with regard to claim 1.

***J. Claims 28 and 29***

Independent claims 28 and 29 recites features similar to, although not necessarily coextensive with, the features discussed above with respect to proposed amended claim 2. Therefore, claims 28 and 29 are patentable over Noguchi for reasons analogous to those discussed above with regard to claim 2.

**K. Claim 30**

Independent claim 30 recites features similar to, although not necessarily coextensive with, the features discussed above with respect to claim 21. Therefore, claim 30 is patentable over Noguchi for reasons analogous to those discussed above with regard to claim 21.

**IV. New Claims**

In order to prove more varied protection, Applicant adds claims 31-36, which are patentable by virtue of their dependency and for additional features set forth therein.

**V. Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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